

### ABSTRACT OF THE DISCLOSURE

5       The invention relates to kits and methods for the sensitive and rapid typing  
and enumeration of microorganisms in a sample. The basic method comprises  
adhering specific capture-antibodies to a solid support, to bind to microorganisms  
specific for the antibody, and adding primary antibodies specific to a viability  
marker of the microorganisms. This is followed by the addition of secondary  
antibodies that may be conjugated to a reporter molecule. Preferably the reporter  
10       function involves light and the detectable marker is aequorin and the need for a  
second antibody is overcome. The invention is useful for the detection of a number  
of different microorganisms including bacteria, fungi and protozoan of a variety of  
species.